Expenditures on Children by Rural Families

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Total expenses on a rural child in real terms have increased from 1960 to 2000. Food expenses have decreased, but health care and child care/education expenses have increased more. These trends highlight the importance of updating the expenditure base of USDA's cost of raising a child series.

Since 1960, the U.S. Department of Agriculture (USDA) has provided annual estimates of family expenditures on children in both urban and rural areas. USDA's annual childrearing expense estimates are used in four major ways:

- **Determining State child support guidelines.** Under the Family Support Act of 1988, States are required to have numeric child support guidelines and to consider the economic costs of raising a child in these guidelines. The economic well-being of millions of children are affected by child support.

- **Determining State foster care payments.** In 1998, about 520,000 children were in foster care.

- **By courts to appraise damages arising from personal injury or wrongful death cases.** For example, if a person with children is hurt on a job such that he or she cannot work, the courts use the expense figures to determine compensation for the family.

- **In educational programs for anyone considering having children.** These expense estimates may encourage teens to wait until they are more financially prepared to have children.

For urban areas, childrearing expenses are estimated for families in four regions (Northeast, South, Midwest, and West). For this study, the four urban regions were combined into a single overall urban average. Rural areas are places of fewer than 2,500 people outside a Metropolitan Statistical Area and cover the entire country.

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Family expenditures on children are less in rural than in urban areas. For middle-income families, those in rural areas spent $156,720 to raise a child up to age 18, whereas those in urban areas spent $169,130 (table 1). Housing is the primary reason for the cost discrepancy. Housing, which accounts for the largest share of childrearing expenses, represents a smaller percentage and dollar amount for rural families ($44,190 in middle-income families) than urban families ($58,790). Food expenses (the second largest childrearing cost) for a child are also lower in rural areas. (For more detail, see "USDA Methodology for Estimating Expenditures on Children by Families," p. 28.)

Transportation (the third largest childrearing cost) and health care expenses for a child are higher in rural than urban areas. For rural middle-income families, total transportation expenses on a child for the first 18 years are $26,580 and total health care expenses are $12,630. For urban middle-income families, these figures are $23,890 and $11,350 (table 1). Families in rural areas have longer distances to drive when they make child-oriented travel and may need a second vehicle because of the presence of children. Also, families in rural

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areas may have less health insurance coverage so have to pay more out of pocket for health care.

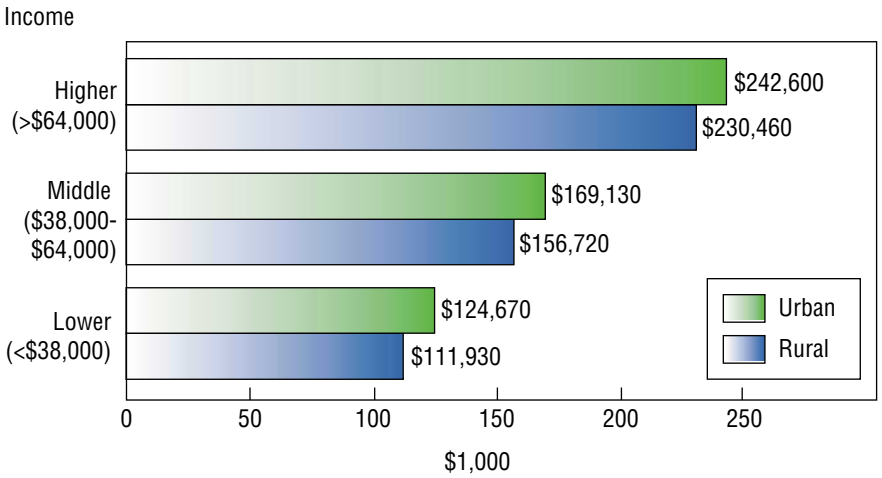
As household income rises for both rural and urban families, so do expenditures per child (fig. 1). Rural and urban families in the lower income group spent $111,930 and $124,670 over 18 years—or about $6,220 per year for rural families and $6,930 per year for urban families. Rural and urban families in the higher income group spent $230,460 and $242,600, or $12,800 per year (rural) and $13,480 per year (urban).

Although family expenditures on children are less in rural areas, this gap, in percentage terms, declines as household income rises. For the lower income group, the difference in childrearing expenses between rural and urban families is

Figure 1

Expenditures on a child up to age 18 (in 2000 dollars) by income and residence

Expenditures rose with household income for both rural and urban families



Source: U. S. Department of Agriculture, *Expenditures on Children by Families, 2000 Annual Report.*

Table 1

Expenses on a child up to age 18 by rural and urban families, by income and budgetary component, 2000

Housing expenditures on children are less in rural than urban areas, but transportation expenditures are greater in rural areas

	Lower income	Middle income	Higher income
Rural families:			
Housing	$29,310 (27%)	$44,190 (27%)	$76,230 (33%)
Food	22,920 (20%)	27,750 (18%)	34,470 (15%)
Transportation	19,440 (17%)	26,580 (17%)	35,100 (15%)
Clothing	9,030 (8%)	10,650 (7%)	13,620 (6%)
Health care	9,690 (9%)	12,630 (8%)	14,580 (6%)
Child care/education	9,450 (8%)	16,650 (11%)	26,790 (12%)
Miscellaneous	12,090 (11%)	18,270 (12%)	29,670 (13%)
Total	$111,930	$156,720	$230,460
Urban families:			
Housing	$43,880 (36%)	$58,790 (35%)	$90,950 (38%)
Food	24,530 (20%)	29,270 (17%)	35,870 (15%)
Transportation	16,730 (13%)	23,890 (14%)	32,360 (13%)
Clothing	9,170 (7%)	10,780 (6%)	13,780 (6%)
Health care	8,570 (7%)	11,350 (7%)	13,200 (5%)
Child care/education	9,260 (7%)	16,370 (10%)	26,360 (11%)
Miscellaneous	12,530 (10%)	18,710 (11%)	30,080 (12%)
Total	$124,670	$169,130	$242,600

Notes: Budgetary shares in parentheses. Estimates of 2000 family expenditures on the younger child in husband-wife households with two children by rural-urban residence. The expenses are for a child up to age 18 and for lower, middle, and higher income groups of households (approximate before-tax income under $38,000, between $38,000 and $64,000, and over $64,000).

Source: U.S. Department of Agriculture, *Expenditures on Children by Families, 2000 Annual Report.*

USDA Methodology for Estimating Expenditures on Children by Families

USDA provides annual estimates of expenditures on children by married-couple and single-parent families from birth through age 17. (The expenditures on children by single-parent families are not available by rural/urban area because of sample size limitations.) Expenditures on children are estimated for the major budgetary components: housing, food, transportation, clothing, health care, child care/education, and miscellaneous goods and services.

Housing expenses consist of shelter (mortgage interest, property taxes, or rent; maintenance and repairs; and insurance), utilities (gas, electricity, fuel, telephone, and water), and house furnishings and equipment (furniture, floor coverings, and major/small appliances). For homeowners, housing expenses do not include mortgage principal payments; in the data used, such payments are considered to be part of savings.

Food expenses consist of food and nonalcoholic beverages purchased at grocery, convenience, and specialty stores, including purchases with food stamps; dining at restaurants; and household expenditures on school meals.

Transportation expenses consist of the net outlay on purchase of new and used vehicles, vehicle finance charges, gasoline and motor oil, maintenance and repairs, insurance, and public transportation.

Clothing expenses consist of children's apparel such as diapers, shirts, pants, dresses, and suits; footwear; and clothing services such as dry cleaning, alterations and repair, and storage.

Health care expenses consist of medical and dental services not covered by insurance, prescription drugs and medical supplies not covered by insurance, and health insurance premiums not paid by employer or other organization.

Child care and education expenses consist of daycare tuition and supplies; babysitting; and elementary and high school tuition, books, and supplies.

Miscellaneous expenses consist of personal care items, entertainment, and reading materials.

The most recently calculated childrearing expenses are based on 1990-92 Consumer Expenditure Survey (CE) data updated to 2000 dollars using the Consumer Price Index (CPI). The CE, administered by the Bureau of Labor Statistics (BLS), United States Department of Labor, is the only Federal survey of household expenditures collected nationwide. It collects information on sociodemographic characteristics, income, and expenditures of a nationally representative sample of households. The sample consisted of 12,850 husband-wife households, weighted to reflect the U.S. population of interest. Future estimates of childrearing expenses will be based on the 1998-2000 CE as soon as these data are available. While there may have been a change in expenditure patterns since 1990-92, these changes are not thought to be drastic.

The methodology employed by USDA in determining childrearing expenses examines the intrahousehold distribution of expenditures using data for each budgetary component. The CE contains child-specific expenditure data for some budgetary components (clothing, child care, and education) and household-level data for the other budgetary compo-

11 percent, for the middle-income group 8 percent, and for the higher income group 5 percent.

Expenditures by budgetary component differ for lower, middle, and higher income rural families (table 1 and fig. 2). As a percentage of total childrearing expenses, housing is larger for higher income rural families (33 percent) than for lower and middle-income families (27 percent each). Food declines as a percentage of childrearing expenses across income groups—from 20 percent for lower income families to 15 percent for higher income families—but increases in dollar terms. Higher income rural families buy more expensive food and eat out more often. Transportation accounts for 17 percent of childrearing expenses for lower and middle-income families, and 15 percent (and a higher dollar amount) for higher income families. Children in higher income rural families may be taken on more trips, and teenagers in these families may have their own car.

nents (housing, food, transportation, health care, and miscellaneous goods and services). Multivariate analysis was used to estimate household and child-specific expenditures, controlling for income level, family size, age of the child, and region of residence so expenses can be determined for families with these varying characteristics. Childrearing expense estimates are provided for three income levels of husband-wife families. These income groups were determined by dividing the sample for the overall United States into equal thirds.

For each income level, the estimates are for the younger child in families with two children. The younger child is in one of six age categories: 0-2, 3-5, 6-8, 9-11, 12-14, and 15-17. Households with two children were selected as the standard because in 1990-92, this was the average household size. The focus is on the younger child in a household because the older child may be over age 17.

Estimates are based on CE interviews of households with and without specific expenses. For some families, expenditures may be higher or lower than the mean estimates, depending on whether or not they incur the expense. Child care and education are two such services. Also, the estimates cover only out-of-pocket expenditures on children made by the parents and not by others, such as grandparents or friends.

After the various overall household and child-specific expenditures were estimated, these total amounts were allocated among family members (i.e., in a married-couple, two-child family: the husband, wife, older child, and younger child). Since the expenditures for clothing, child care, and education are child-specific and thus apply only to children, allocations of these expenses were made by dividing them equally among the children. Because the CE does not collect expenditures on food and health care by family member, data from other Federal studies that show children's food and health care budget shares were used to apportion these budgetary components to a child by age.

Unlike food and health care, no authoritative base exists for allocating household expenditures on housing, transportation, and other miscellaneous goods and services among family members. Two common approaches used in allocating these expenses are the per capita method and the marginal cost method. The marginal cost method measures expenditures on children as the difference in expenses between couples with children and equivalent childless couples. Various equivalency measures have been proposed, yielding very different estimates of expenditures on children, with no standard measure accepted by economists. Also, the marginal cost approach assumes that the difference in total expenditures between couples with and without children can be attributed solely to the presence of children in a family. This assumption is questionable, especially since couples without children often buy homes larger than they need at the time of purchase in anticipation of having children. Comparing the expenditures of these couples to similar couples with children could lead to underestimates of expenditures on children.

For these reasons, USDA uses the per capita method to allocate expenses on housing, transportation, and miscellaneous goods and services among household members in equal proportions. Although the per capita method has its limitations, these limitations are considered less severe than those of the marginal cost approach. Because transportation expenses resulting from work activities are not directly related to the cost of raising a child, these expenses were excluded when determining children's transportation expenses.

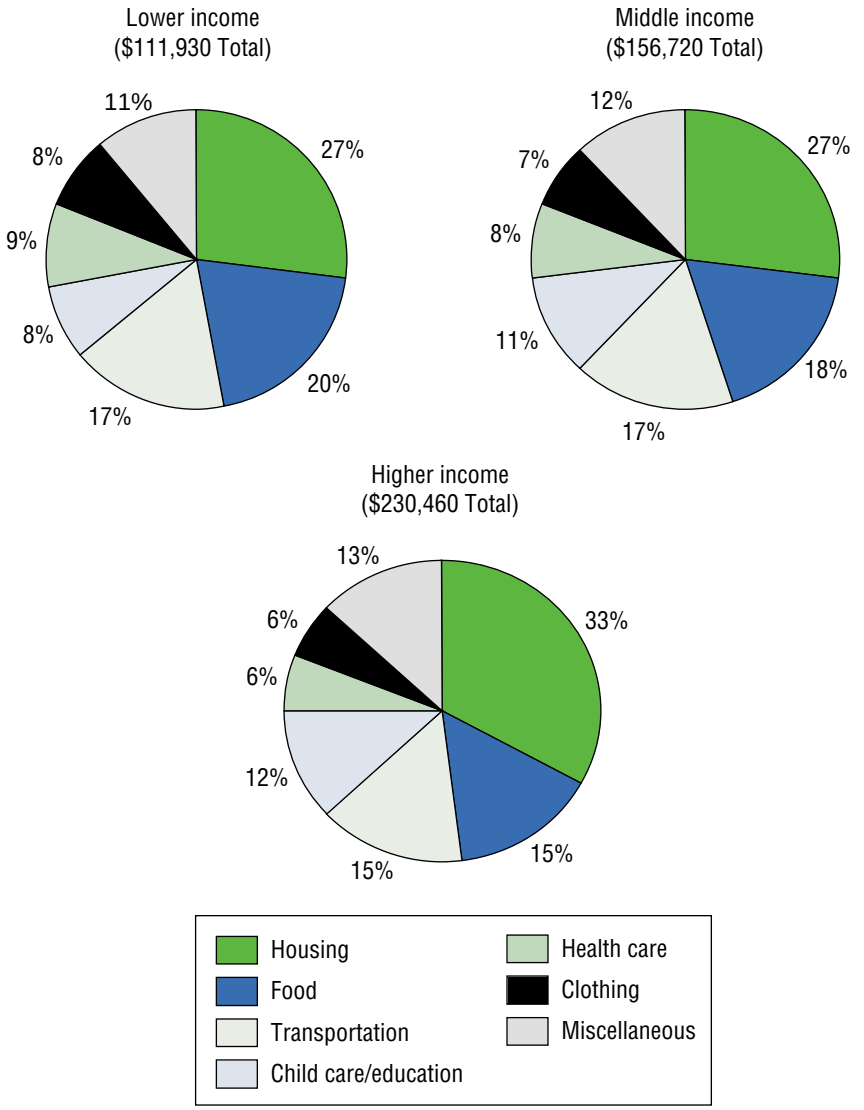
Clothing and health care decline as a percentage of childrearing expenses across the three rural income groups, but increase in dollar terms. Child care/education and miscellaneous expenses account for a larger percentage of childrearing expenses for higher income rural families. As expenses on these budgetary components are discretionary, it is not surprising that higher income families have greater expenditures.

For families in both rural and urban areas, childrearing expenses steadily increase by age of the child (fig. 3). Expenses are lowest at age 2 and under and highest for teenagers (age 15-17). Food and transportation account for much of this increase in expenses as a child ages. As a child grows older, his or her caloric needs increase. Average annual food expenses for a rural 2-year-old are $1,010, versus $2,000 for a rural 15-year-old. Moreover, when teenagers begin driving, auto insurance and vehicle expenses increase. Average annual transportation expenses for a rural 5-

Figure 2

Childrearing expenses of rural families, by budgetary component and income, 2000

Housing is larger percentage of total childrearing expenses for higher income rural families; food expenses decline across income groups



Source: U. S. Department of Agriculture, *Expenditures on Children by Families, 2000 Annual Report.*

year-old are $1,250, versus $1,950 for a rural 17-year-old.

Childrearing expenses have increased in real terms for both rural and urban families since 1960 (the first year USDA produced estimates). Real expenditures on a child up to 18 in middle-income rural families have increased 15 percent over 1960-2000 (from $136,810 to $156,720). In that time, housing declined from 31 to 27 percent and food declined from 23 to 18 percent of total childrearing costs. In real dollars, housing expenses have remained nearly constant and food expenses have decreased.

Health care and child care/education increased as a percentage of total childrearing costs. Health care rose from 4 to 8 percent and child care/education rose from 2 to 11 percent of childrearing expenses from 1960 to 2000 (fig. 4). The increase in health care follows the large rise in the cost of medical care over this time. The dramatic increase in child care/education expenses coincides with the increased labor force participation of mothers.

Clothing expenses decreased as a percentage share and in real terms over 1960-2000. This may seem surprising given the large selection in children's clothing today. However, expense figures examine only what the household spends on a child and not what others, such as grandparents, spend. If gifts from other people were included, real child-related clothing expenses may have increased from 1960 to 2000 because grandparents are spending more on grandchildren. Because of data limitations, clothing expenses on a child from nonhousehold members cannot be examined.

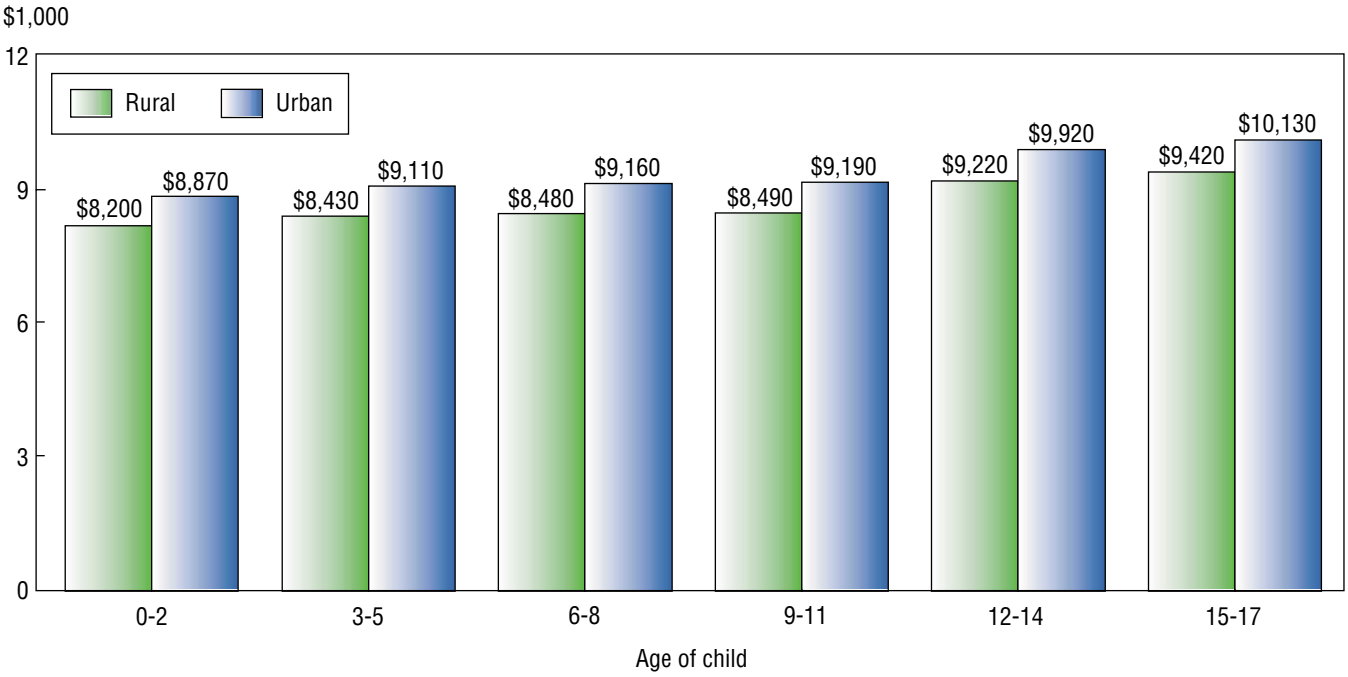
Adjustments for Older Children and Household Size

The expense estimates on a child represent expenditures on the younger child at various ages in a husband-wife household with two children. It cannot be assumed that expenses on the older child are the same at these various ages. To determine whether expenses vary by birth order, the methodology for estimating expenses on the younger child was essentially repeated using rural and urban families combined. The focus was on the older child in each of the same age categories as those used with the younger child. A two-

Figure 3

Expenditures on a child by middle-income families, by age of child and residence, 2000

Childrearing expenses steadily increased with age in both rural and urban areas



Source: U. S. Department of Agriculture, *Expenditures on Children by Families, 2000 Annual Report.*

child family was again used as the standard.

On average, for husband-wife households with two children, it was found that expenditures do not vary by birth order. Thus, annual expenditures on children in a husband-wife, two-child family may be estimated by summing the expenses for the two appropriate age categories in figure 3.

Although expenses on children were not found to vary by birth order, they differed if a household had only one child or more than two children. Families spend more or less on a child depending on the number of other children in the household. Our methodology (see "USDA Methodology for Estimating Expenditures on Children by Families") was repeated for families with one child and families with three or more children. This again was done for a combined sample of rural and urban families. Compared with expenditures for each child in a husband-wife, two-child family, husband-wife households with one child spent an average of 24 percent more on the single child, and those with three or more children spent an average of 23 percent less on each child. In short, family income is spread over fewer or more children, subject to economies of scale. As families have more children, the children can share a bedroom, clothing and toys can be handed down to younger children, and food can be purchased in larger, more economical packages.

Other Expenditures on Children

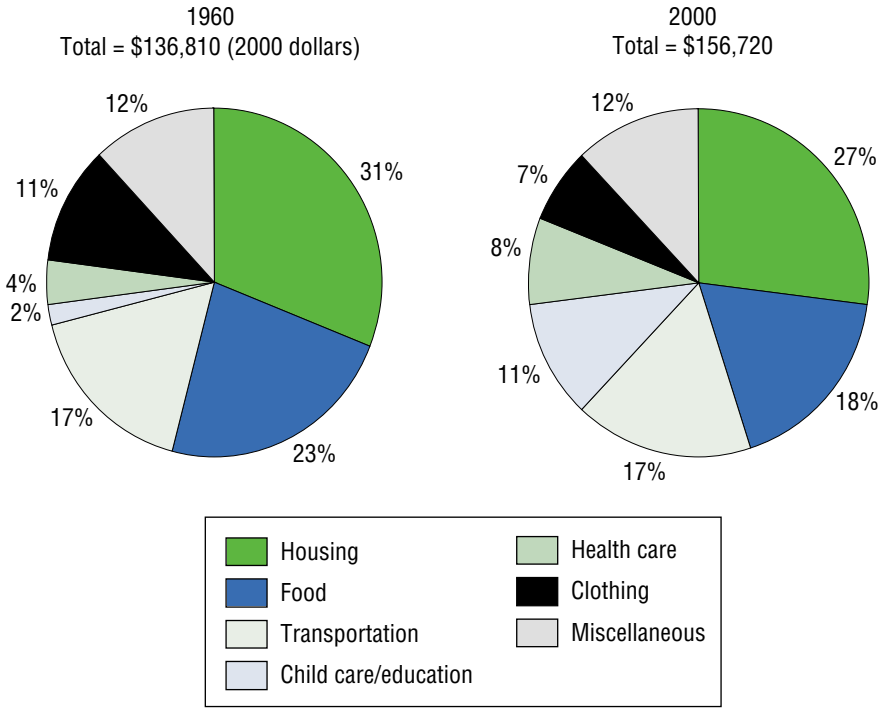
Childrearing expenditures are direct parental expenses made on rural and urban children up to age 18 for 7 major budgetary components, excluding costs related to childbirth and prenatal health care. In 1996, health care costs averaged $7,090 for a normal delivery and $11,450 for a Caesarean delivery. Other expenditures, especially those incurred after a child turns age 18, are also excluded.

One of the largest expenses made on children after age 17 is the cost of a college education. The College Board estimated that in 2000-2001, annual average tuition and fees were $3,420 at 4-year public colleges and $13,688 at 4-year private colleges; annual room and board was $4,705 at 4-year public colleges and $5,447 at 4-year private colleges. Other parental expenses on children after age 17 could include those associated with children living at home or, if children do not live at home,

Figure 4

Expenditures on a rural child, 1960 and 2000

Childrearing expenses have increased in real terms for rural families since 1960



Source: U. S. Department of Agriculture, *Expenditures on Children by Families, 2000 Annual Report.*

gifts and other contributions to them. A 1996 survey found that 47 percent of parents in their fifties support children over 21 years of age.

The estimates do not include all government expenditures on children, such as public education, Medicaid, and subsidized school meals. Actual expenditures on children (by parents and the government), therefore, would be higher than reported here. The indirect costs of raising children—time allocated to childrearing and decreased earnings—are not included in the estimates. Although these costs are more difficult to measure than direct expenditures, some studies have found them to exceed the direct costs of children.

Conclusions

Children bring many pleasures, but the fact remains that childrearing is a costly endeavor. Family expenditures on children are less in rural than urban areas for families in similar income groups. Housing is the main reason for this. However, the gap in childrearing expense (in percentage terms) between rural and urban families declines as household income rises.

Older children are more expensive than younger children. Families do achieve a "cheaper by the dozen" effect as they have more children. The cost of two children is less than double the cost of one child.

States developing guidelines for child support and foster care payments might use the USDA childrearing expense estimates as a base. If so, States need to keep in mind the difference in childrearing expense between rural and urban areas. A primarily rural State may want to work from the cost of raising a child in rural areas. If a State is both urban and rural, it may want to use an average of the cost of raising a child in the two areas. Likewise, when States are developing child support guidelines and foster care payments, they need to recognize the difference in childrearing expenses by age of the child and number of children in the family.

Future estimates of childrearing expenses will be based on 1998-2000 data as soon as these data are available. Given the increasing percentage of mothers in the labor force and the growing burden of health care costs on households, expenses on children are likely rising. RA

For Further Reading . . .

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